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MALAWI

USAID TB CARE II Malawi Project

Annual Report, 2013

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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
CB-DOTS	Community-based DOTS Program
CBO	Community Based Organization
CDR	Case Detection Rate
CHW	Community Health Workers
CPT	Co-trimoxazole Preventive Therapy
CRL	Central Reference Laboratory
CSCP	Community Sputum Collection Point
DOTS	Directly Observed Treatment Short-course Strategy
DHMT	District Health Management Team
DST	Drug Sensitivity Testing
EQA	External Quality Assessment
GFATM	Global Fund to Fight AIDS, TB, and Malaria
GHI	Global Health Initiative
HIV	Human immunodeficiency virus
HTC	HIV Testing and Counseling
IC	Infection Control
M&E	Monitoring and Evaluation
MDR-TB	Multi drug-resistant TB
MOH	Ministry of Health and Family Welfare
NTRL	National Tuberculosis Reference Laboratory
NTP	National Tuberculosis Control Program
OPD	Out-Patient Department
PIH	Partners In Health
PMDT	Programmatic Management of Drug-resistant TB
PMP	Performance Monitoring Plan
PMTCT	Preventing Mother-to-Child Transmission
QA	Quality Assurance
SOP	Standard Operation Procedures

TB	Tuberculosis
TWG	Technical Working Group
URC	University Research Co., LLC
USAID	United States Agency for International Development
USG	United States Government
WHO	World Health Organization

1 EXECUTIVE SUMMARY

This report covers activities completed during TB CARE II's PY3 (October 1, 2012 – September 30, 2013). A particular focus for PY3 was the expansion of the project to 6 additional districts (Balaka, Chikhwawa, Nkhosha, Nsanje, Mzimba and Zomba) bringing to 12 the number of districts supported. The previous 6 districts supported were: Machinga, Mangochi, Mulanje, Neno, Ntcheu, and Phalombe. Support was also provided to NTP at the national level and there were also limited activities in Lilongwe related to (Programmatic Management of Drug-resistant TB (PMDT).

The key achievements of the TB CARE II Malawi Project are:

- Facilitated and supported the establishment of partnership and coordination committees, including sponsorship of meetings in 12 impact districts to promote synergistic cooperation/collaboration of partners and to minimize resource duplication and wastage at the implementation level.
- Supported improved access to TB treatment and care through establishment of 20 new TB registration and initiation sites in all 12 districts and through integration of TB services to HIV services
- Supported community-based MDR-TB roll-out plan through the expansion of specialized management teams from 1 in 2012 to 3 in 2013. The training manuals for community-level MDR-TB care providers and MDR-TB teams were developed. The manuals were used to train 86 community care providers and their supervisors to support patient treatment and care at community and household levels.
- Community TB delivery services to improve access to diagnosis were strengthened through opening of 30 new Community Sputum Collection Points (CSCPs) and supporting an additional 290 old ones; opening of 22 cough corners and appointment and orientation of 34 cough officers.
- 125 Community Sputum Collection Points and 869 volunteers received enablers to motivate performance
- Strengthened peripheral lab services through distribution of lab Standard Operating Procedures (SOPs) to impact microscopy sites; joint supportive supervision, mentoring and quality review and improvement meetings in all 12 impact districts
- Supported the review, printing and distribution of NTP's monitoring and reporting tools. These included clinical and laboratory registers, and request forms. These have been distributed nationally.
- The project supported the rollout of GeneXpert machines in Malawi through the development of a draft GeneXpert register, request forms and patient treatment cards.
- TB CARE II also sponsored 3 laboratory officers (one each from the NTRL and HIV department and an NTP zonal lab officer) to the Xpert® conference held in July 2013 in Botswana.
- World TB day commemoration in 2013 was supported at the central level and in 3 districts (Balaka, Neno and Mulanje).
- Procured TB Infection Control commodities and materials (5040 N95 respirators) and the procurement of 30 Fit Testing Kits is at advanced stage.

- Technical support was also provided for the revision of the national operational research strategic plan and the national TB/HIV Operational Framework for 2013 – 2017. The framework has been approved by NTP, printed and distributed.
- District TB quarterly review meetings were supported in all the 12 districts. The review meetings provided forums for the districts to review progress made on TB control and address emerging challenges.
- Technical and financial support was provided to the National TB Prevalence Survey through procurement of critical commodities, equipment and survey materials for field and central operations.
- TB CARE II supported and participated in regular joint quarterly supportive supervisory and monitoring visits in all the 12 districts.
- Supported the orientation of 19 journalists (12 male, 7 female) drawn from different public and private print and electronic (Radio & Television) media houses in Lilongwe on TB

2 INTRODUCTION

2.1 USAID/Malawi Objectives for the TB CARE II Project

The United States Agency for International Development (USAID) awarded the TB CARE II Project, a five-year cooperative agreement (2010 – 2015) in Malawi to assist the NTP in improving TB control and expanding access to high-quality TB and TB/HIV services in the public sector.

This overarching goal is pursued by focusing activities on 4 programmatic objectives: (1) Improving case detection through DOTS expansion and strengthening; (2) enhancing TB/HIV programmatic integration; (3) improving the programmatic management of drug-resistant TB (PMDT); and (4) leveraging TB control interventions to strengthen the overall health system.

The major project interventions are focused on both the national and district levels. At the national level this includes strengthening the laboratory network and improving the National TB Reference Laboratory (NTRL) capacity, supporting the nascent community based drug-resistant TB (DRTB) treatment program, piloting novel diagnostics such as Xpert® roll-out, and strengthening the NTP centrally. Activities in target districts are focused on implementing a comprehensive package that includes emphasis on DOTS expansion and enhancement, integration of TB/HIV services, improved services for DRTB and health system strengthening through the decentralization of services, improvement of the laboratory network and involvement of community structures in diagnosis and patient follow-up.

The major project outputs are: (1) improved environment for case detection (all forms) in TB CARE II target districts; (2) decentralization of TB registration and treatment initiation to community hospital and health center levels (3) strengthening of community-based mechanisms for TB case detection, contact tracing, treatment adherence, care and support through the use of community volunteers and other members of community-based organizations; (4) improve TB/HIV integration through implementation of the 3I's and provision of "One-stop" services for HIV & TB co-infected patients; and (5) ensure a functioning national program for MDR-TB diagnosis, prevention, and treatment.

2.2 Overview of Activities/ Results

During Project Year 3 (October 1, 2012 – September 30, 2013), TB CARE II Malawi achieved several notable results as outlined in the Executive Summary. A more detailed overview of the activities completed is provided below.

Completed activities for Project Year 3:

At the central level, TB CARE II provided technical assistance and support for the following activities:

- Supported the finalization, printing and distribution of critical NTP recording and reporting materials. These include clinical and laboratory registers, and request forms

- Supported the development of training materials for community based MDR-TB care providers (DOT plus providers) and District MDR-TB Management teams.
- Supported the expansion of MDR-TB hospital care to two districts (Blantyre and Lilongwe) by training
- TB CARE II supported the training of additional 3 MDR-TB clinical management teams in Blantyre & Lilongwe district hospitals
- Sponsored 3 laboratory officers (one each from the NTRL and HIV department) and an NTP zonal lab officer) to the Xpert® conference held in July 2013 in Botswana.
- Participated in joint supportive supervisory, monitoring visits by NTP logistics officers
- Supported the strengthening of District Health Management Team-members (DHMT staff) through capacity building and mentoring and through joint Zonal/district TB officers' supervision and monitoring & reviews
- Provided NTP with technical and financial support in the implementation of the National TB prevalence survey
- Provided TA to the TB and TB/HIV and Diagnostics technical working groups
- Supported 2013 World TB Day commemoration at the national level

The district level activities supported or performed by TB CARE II included technical assistance and direct material/financial support for the following:

- Building the capacity of health care staff working in TB through training and re-training, joint supervision, on-the-job coaching, monitoring and reviews
- Supporting establishment of 20 new TB registration and initiation centers in target districts
- Supporting capacity building and strengthening of the DHMTs through joint program planning, supervision, monitoring and reviews
- Joint supportive supervision and mentoring of MoH district laboratory technicians, lab assistants and HSAs on quality AFB microscopy in target districts
- Collaboration with partners such as SSDI, Dignitas International, Sue Ryder and Partners In Health on integration of TB in HIV services

2.3 Geographic Scope

TB CARE II Malawi supports implementation of activities in 12 districts in Malawi and support NTP at the national level. The districts shown in the map below are: Balaka, Chikhwawa, Machinga, Mangochi,



Mulanje, Mzimba, Phalombe, Neno, Nkhotakota, Ntcheu, Nsanje and Zomba.

3 RESULTS BY TECHNICAL AREA

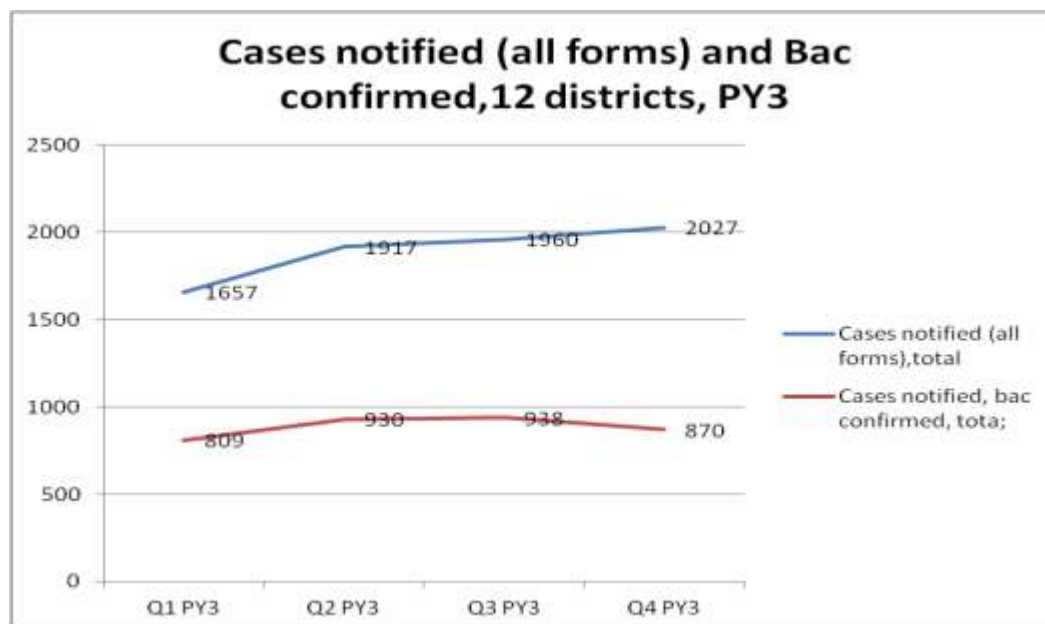
3.1 Result Area 1: DOTS Expansion and Enhancement

3.1.1 Decentralization of TB diagnosis and registration

In Y3, TB CARE II supported the opening of 20 new TB registration and initiation sites, thus increasing the total registration centers from 11 in 2010 to 74 in 2013 in the 12 districts. As a result, TB CARE II contributed 71% of all new TB initiation and registration sites, and 54% of all TB registration and treatment initiation sites in Malawi are now in TB CARE II districts.

The number of confirmed TB cases (all forms) is 7561 in the PY3. The treatment success rate (smear positive and MTB positive cases) is 85% for the cohort of 2012.

Figure 1: Key results on Cases Notified (All forms) and placed on treatment



3.1.2 Support for advocacy and community mobilization around TB

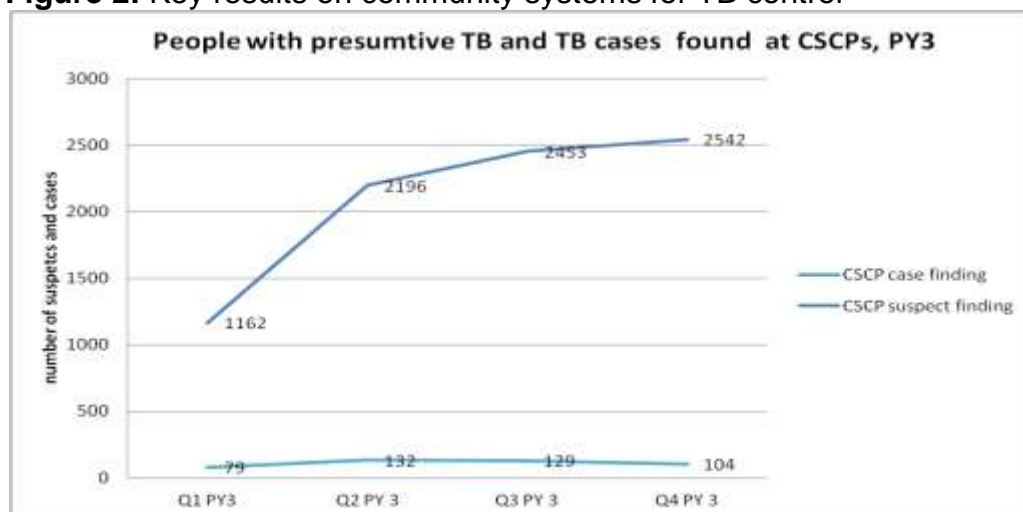
TB CARE II supported commemoration of the 2013 national World TB Day in Lilongwe and 3 districts (Balaka, Neno and Mulanje).

3.1.3 Community based sputum collection points

The project continued to strengthen community-based TB service delivery through the support training, and supervision of CSCPs and CBOs. In the PY 3 there 8353

presumptive TB cases were identified in the target districts, out of which 444 were confirmed to have TB.

Figure 2: Key results on community systems for TB control



TB CARE II continued its collaboration with CBOs. As a result of these collaborative efforts the project is now working with a total of 20 CBOs (Nsanje (4), Mulanje (3), Mzimba (1) Neno (6), Chikhwawa (2) and Zomba (5) to promote TB screening among people living with HIV and AIDS. The project continues to mentor, train and supervises the CSCPs and CBOs to further strengthen case finding within the communities.

3.2 Result Area 2: Strengthening the Laboratory Network for TB

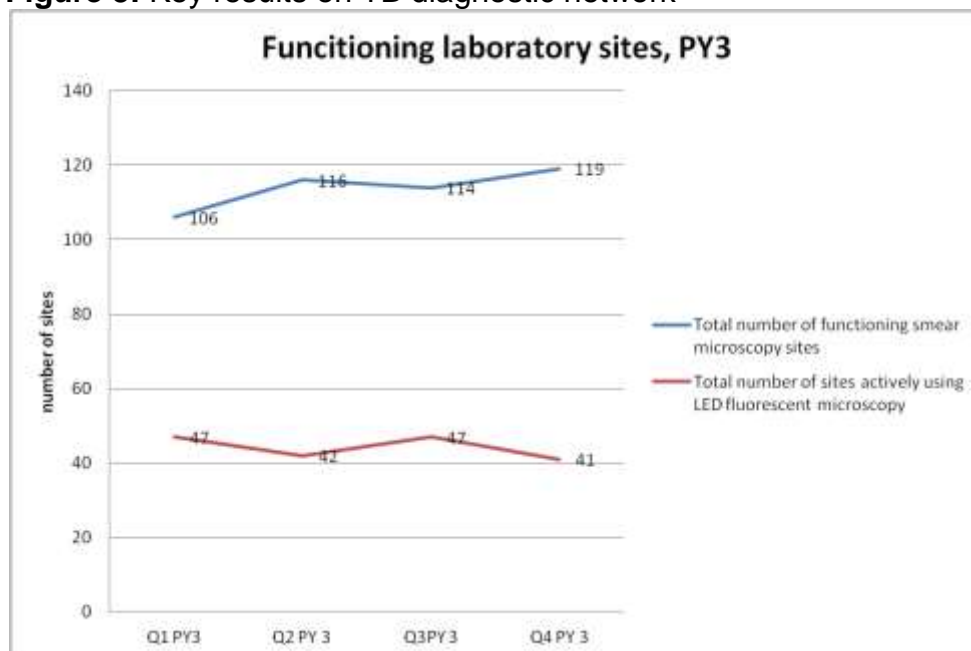
3.2.1 Building capacity of the National TB Reference Lab (NTRL)

TB CARE II sponsored three lab officers, one each from the NTRL and HIV department, and the third a zonal lab officer, to attend the Xpert® conference held in July 2013 in Botswana.

3.2.2 Expansion and improvement of smear microscopy network

Improving and expansion of TB microscopy is one of the major areas that TB CARE II Supports in Malawi. In order to achieve this objective, TB CARE II strengthened peripheral laboratory services through distribution of SOPs to microscopy sites in all the supported 12 districts. Joint supportive supervision, mentoring, and quality review and improvement meetings were conducted to facilitate quality TB laboratory services. TB CARE II also supports 43 I-LED microscopes in the 12 districts. Six more I-LED microscopes have been procured in PY3 to increase microscopy network in the supported districts. The 6 additional I-LED microscopes are yet to be installed.

Figure 3: Key results on TB diagnostic network

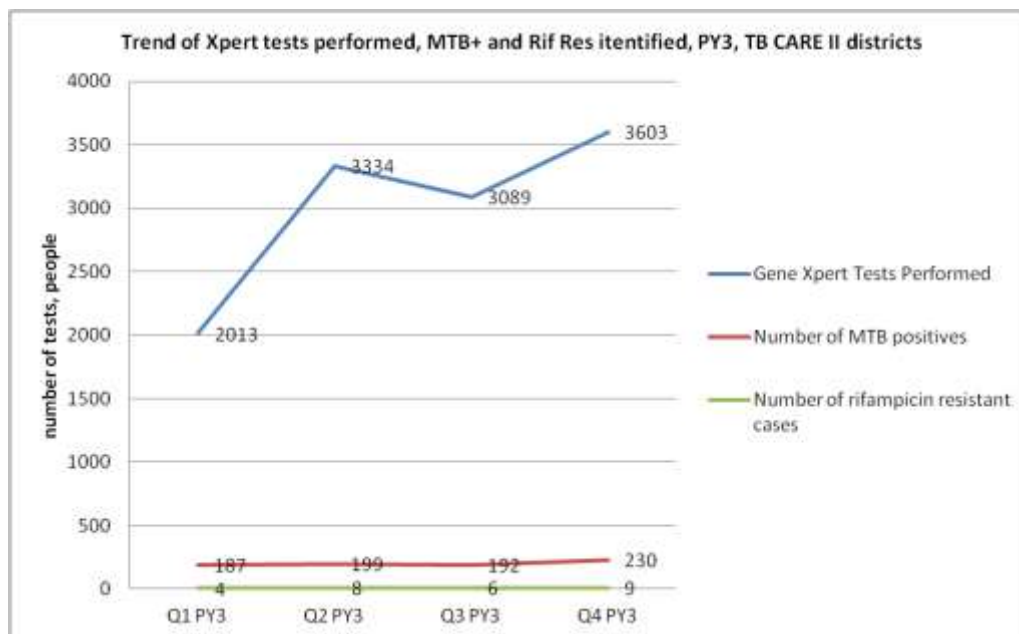


On Xpert® implementation, TB CARE II supported the development of recording and reporting materials some of which were printed and distributed while the rest, including Xpert® revised algorithm, are awaiting approval by NTP and the TWG on Diagnostics. Three lab officers (one each from the NTRL and HIV department and the third, a zonal TB lab officer) were sponsored to the Xpert® conference held in July 2013 in Botswana.

TB CARE II participated in the Technical Working Group on Diagnostics meeting held in Aug 13, 2013 in Lilongwe to discuss progress and challenges of diagnostics including TB laboratory services in the country. The need to review the NTP strategic plan to accommodate new diagnostics, especially Xpert® was noted. A resolution to review the NTP plan to incorporate Xpert® roll out framework and new algorithm was passed. TB CARE II will support the Xpert® roll-out and Algorithm meeting schedule for October/November 2013.

In PY13, a total of 12,039 tests have been conducted using Xpert/MTB Rif in the 12 districts, out of which 808 and 27 cases were MTB-positive and Rif resistant respectively.

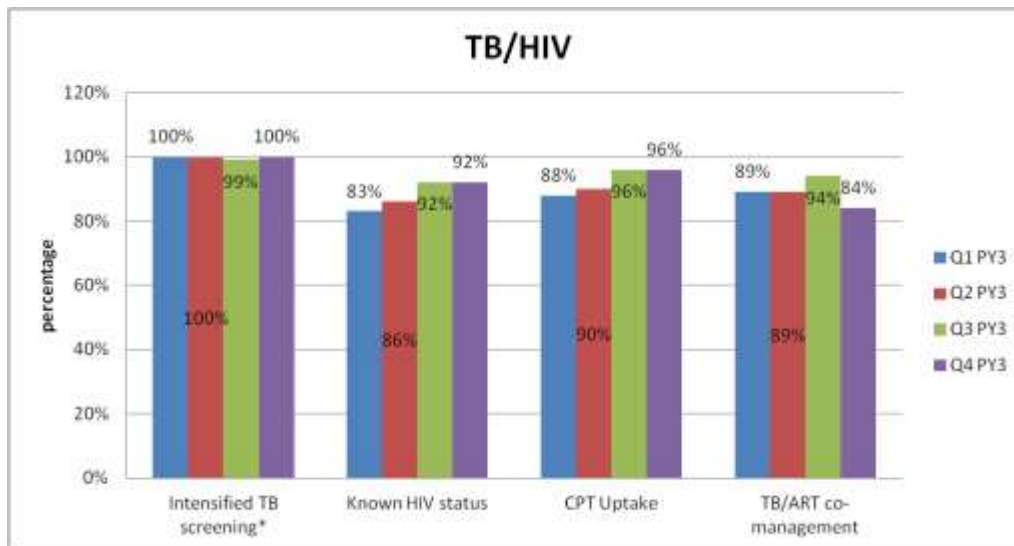
Fig 4: Trend of Xpert® performance Project Years 2 to 3



3.3 Result Area 3: TB/HIV

TB CARE II continued to support district-wide implementation of comprehensive TB/HIV integration in target districts. This is done through the establishment of “one-stop” centers for TB/HIV services; orientation of HIV service providers on TB and TB service providers on HIV; setting up of intensive TB case finding in HIV service settings (HTC, ART, PMTCT and ANC clinics as well as in OPD and diabetic clinics) in impact district and the creation of cough corners and appointment of cough officers/monitors in high volume health facilities. All the 74 TB Registration sites are also ART centers, while 20 TB registration sites have functional cough corners.

Fig 5: Key results on TB/HIV



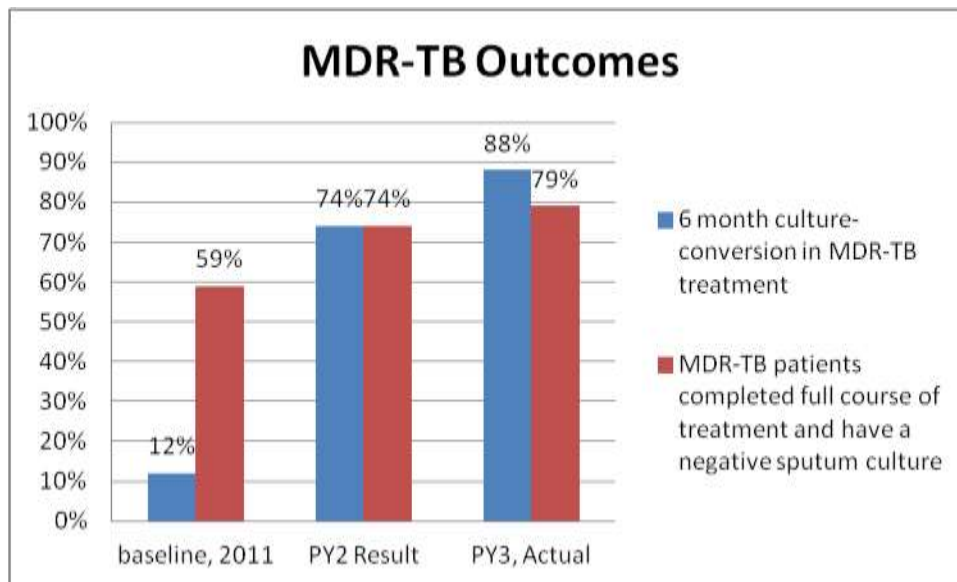
As shown in the figure above, the CPT uptake in TB CARE II impact health facilities was maintained at 96%, while ART uptake among HIV positive TB patients decreased from 94% in Q3 to 84% in Q4. The possible factors for the decline in ART uptake is being investigated.

3.4 Result Area 4: MDR-TB Management

The project continued to strengthen the management of MDR-TB cases in Malawi through the development and adaptation of training materials for district MDR-TB management teams. In PY3, 2 additional district MDR-TB teams comprising of 20 HCWs (10 male, 10 female) were established in Blantyre and Lilongwe districts. In addition, a seminar on PMDT was conducted for 7 Consultants of the Queen Elizabeth Hospital in Blantyre. The teams were trained on community-based care for MDR-TB patients and the co-management of MDR-TB and HIV.

In PY3, there were 26 patients diagnosed with MDR-TB in the country, out of which 12 have been put on treatment. The 6-month culture conversion rate is 88% in 2013. Treatment success rate improved from 59% in 2011 to 73% in 2013 while the death rate decreased from 35% to 22% during the same period. The key results are shown in the figure below.

Figure 6: Key results on PMDT



3.5 Result Area 5: Health System Strengthening

3.5.1 Support to the NTP (national and district)

TB CARE II continued to promote and facilitate the establishment of partnerships in all impact districts. In Q4, TB CARE II supported and participated in several partnership and coordination meetings:

- On intensified case finding in Neno in collaboration with Partners In Health
- On installation and use of Xpert® platform in Mzimba in collaboration with TB REACH
- In Nkhotakota on death audit in collaboration with DHMT and SSD
- On DIP in collaboration with EGPAF, Sue Ryder International, UNC and DHMT in Ntcheu
- On TB/HIV integration in collaboration with Dignitas International and SSDI

TB CARE II in collaboration with USAID/Malawi and USAID/Washington, provided support to NTP in to facilitate the release of Global Fund monies for Round 7 TB grant, including collaborating with the NTP and Global Fund technical officers in the development of a procurement plan for the Round 7 TB grant. It is gratifying to note that the freeze on Global Fund disbursement to the NTP has been eased with disbursement of funds for activities. The funds are already in-country awaiting release to NTP. However, funding for TB at district level remains very low, TB partners' supports are far

and between. These are being compounded by still inadequate manpower for TB control and the high attrition rate of the few that are available.

TB CARE II supported joint quarterly review of TB & TB/HIV control activities in all 12 impact districts. In addition, 592 health care workers (440 male & 152 female) were trained on TB & TB/HIV co-management during the reporting year.

The project also provided technical input for the development of a proposal for short-term funding of electronic data recording system for MDR-TB. The proposal made to WHO headquarters in Geneva was successful.

The project continued to provide support to the National TB Prevalence Survey through procurement of 15 small and 2 large sputum container trays for sputum samples refrigeration. These items were not originally budgeted for but were deemed crucial for the lab services.

3.5.2 Monitoring and evaluation

The project supported NTP with the review, printing and distribution of recording and reporting tools. These included clinical and laboratory registers, request forms and patient treatment cards. A draft GeneXpert register, request form and reporting form were also developed. These are currently pending NTP's approval before they can be printed.

To strengthen monitoring and evaluation within NTP, the project in PY3 supported one officer from NTP to a workshop in Kenya. Following the M&E workshop, a concept note on improving quality of TB Data was prepared with technical input from TB CARE II and endorsed by the NTP. The proposal is being implemented in collaboration with NTP.

4 RESULTS

TECHNICAL AREA

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
DOT Expansion and enhancement							
1	Case Finding	Cases Notified (all forms)	Number of TB patients identified in the target districts	3115	7768	7561	97%
		Cases Notified (bacteriologically confirmed)	Number of smear+, MTB PCR- or culture-positive TB cases identified in the target districts		4483	3547	79%
		TB patients diagnosed by GeneXpert	Number of patients with a positive GeneXpert test (MTB positive result)	0	TBD	808	
		DR-TB patients diagnosed by GeneXpert	Number of patients with rifampicin resistance detected using GeneXpert	0	TBD	27	
2	Strengthen and expand community systems for TB control	Functional Community Sputum Collection Points	Number of functioning Sputum Collection Points		370	290	78%
		New Community Sputum Collection Points	Number of newly establish community-based sputum collection points established	0	47	30	64%
		CSCP geographic coverage area	Number of health facilities			328	
			Number of health facilities with at least 2 community sputum collection points			97	
			Proportion of health facilities with at least 2 community sputum collection points		35%	30%	84%
		CSCP suspect finding	Number of suspects identified through CSCP's		12631	8353	66%
		CSCP case finding	Number of TB cases identified through CSCP's (in the quarter)		1264	444	35%
3	Improve Facility-based TB case finding and management	Facility-based suspect finding	Number of TB suspects identified through facility service delivery outlets per quarter, including OPD, wards, CTC, ART, HTC		38840	32512	84%
		Treatment Success Rate of Confirmed Cases (all NEW forms)	Numerator: Number of confirmed TB cases registered that were cured plus the number that completed treatment in the target districts in a corresponding quarter in the last year			5298	

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
			Denominator: Total Number of cases registered during the same period in the target district.			6321	
			Treatment Success rate of confirmed cases (ALL New forms)	81%	87%	84%	96%
		Treatment Success Rate (Sm+ & MTB/ RIF negative)	Numerator: Number of confirmed smear + pulmonary TB cases registered that were cured plus the number that completed treatment in the same quarter last year			2552	
			Denominator: Total number of confirmed pulmonary smear positive TB cases registered in the same period in the target district.			2995	
			Treatment Success Rate (Sm+ & MTB/ RIF Positive)	86%	88%	85%	97%
		Treatment Success Rate (Sm- & MTB/ RIF NEGATIVE)	Numerator: Number of confirmed smear neg pulmonary TB cases that completed treatment in the target districts in the corresponding quarter previous year.			1752	
			Denominator: Total number of confirmed pulmonary smear neg TB cases registered in the same period in the target districts.			2075	
			Treatment Success Rate (Sm-& MTB/RIF NEGATIVE)	80%	84%	84%	100%
		Treatment Success Rate (EPTB)	Numerator: Number of confirmed EPTB cases registered in a specified period that completed treatment in the target districts.			1115	
			Denominator: Total number of confirmed EPTB cases registered in the same period in the target districts.			1375	
			Treatment Success Rate (EPTB)	71%	80%	81%	101%
		Treatment Success Rate (Retreatment)*	Numerator: Number of confirmed retreatment TB cases registered in a specified period that were cured plus the number that completed treatment in the target districts			590	

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
			Denominator: Total number of confirmed retreatment TB cases registered in the same period in the target districts			724	
			Treatment Success Rate (Retreatment)	80%	83%	81%	98%
		Eligible Children younger than 5 (contacts of PTB adults) that were put on IPT	Numerator: Number of eligible children younger than 5 (contacts of PTB adults) who start (given at least one dose) IPT during the reporting period			749	
			Denominator: Total number of eligible children younger than 5 (contacts of PTB adults) identified during the same reporting period			887	
			Proportion of eligible children (five and under) contacts of PTB adults that were put on IPT	100%	90%	84%	94%
4	Decentralize Treatment and Initiation Registration	Access to TB treatment registration/ initiation sites	Total number of treatment initiation/registration sites across the TB CARE II supported target districts	12	75	74	99%
			New TB Registration sites opened		18	20	111%
Strengthening the Laboratory Network for TB							
1	Increase CRL capacity	Culture capacity	(National) Number of cultures performed in the reporting period	120	140	546	390%
		DST Performance	Number of positive cultures		91	203	223%
			Number of positive cultures with a DST result		45	59	
			(National) Number of first-line DST performed in the reporting period at CRL		45	130	
			Proportion of culture positive who had DST done		100%	64%	64%
			(District) Number of sputum samples transported to CRL quarterly from target districts	12		564	
2	Strengthen and expand the TB diagnostic network	Expansion of smear microscopy	Total number of functioning smear microscopy sites in each district	49.00	118	119	101%

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
		LED fluorescent microscopes	Total number of sites actively using LED fluorescent microscopy	0.00	51	41	80%
		Number of Laboratories with working quality assurance program for tests that they provide including: a) smear microscopy, b) culture, c) DST, and d) rapid molecular test	Total number of laboratories enrolled in EQA program in the target districts		118	106	90%
			Total number of laboratories enrolled in EQA program meeting aforementioned criteria in target districts		118	105	89%
			Proportion of laboratories enrolled in EQA meeting the aforementioned criteria in the target district	36.00	1	99%	99%
		In-district Sample Transport	(District) Number of samples transported to a microscopy center and / or GeneXpert via in-district sputum courier	0.00	TBD	1607	0%
TB/HIV							
1	Integration of TB/HIV Services	Intensified TB screening*	Number of HIV-positive patients seen at HIV testing and counselling or HIV treatment and care services who were screened for TB			89126	
			Total Number of HIV positive patients seen at HIV testing and counselling or HIV treatment and care services during the quarter			89235	
			Per cent of TB screening among HIV positive patients	90%	95%	100%	105%
		Known HIV status	Total number of all TB patients registered over a given time period with documented HIV test in last 3 months OR who were tested for HIV during their TB treatment in the target districts			6644	
			Total number of TB patients registered over the same given time period in the target districts.			7525	
			Per cent known HIV status	88%	90%	88%	98%
		CPT Uptake	HIV-positive TB patients who receive at least one dose of CPT during TB treatment			3410	

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
			Total number of HIV positive TB patients enrolled			3679	
			Per cent CPT uptake	82%	95%	93%	98%
		TB/ART co-management	HIV-positive TB patients who start on or continue previously initiated ART, during or at the end of TB treatment,			2888	
			Total number of HIV-positive TB patients registered over a given time period in target districts			3226	
			Per cent TB/ART uptake	51%	95%	90%	94%
		TB IC	Number of health facilities in target districts with TB IC plan in place			22	
			Total number of health facilities implementing TB IC plan			22	
			Proportion of facilities implementing TB IC plan	No data	80%	100%	125%
		TB IC Training	Number of hospital focal staff trained in TB IC in the district		120	122	102%
		TB IC Policy	Yes/No TB IC measures have been included in the overall national Infection Prevention and Control policy	Y	Y	100%	100%
2	Support implementation of GeneXpert	GeneXpert tests performed	Number of people with suspected TB tested with GeneXpert	0	7,763	12039	155%
PMDT							
1	MDR-TB diagnosis	Number of MDR-TB cases detected	(National) Number of newly diagnosed MDR cases in the reporting period	38	42	26	62%
2	MDR-TB treatment	Number of MDR-TB cases treated	(National) Number of new patients started on MDR-TB treatment with second-line TB drugs	38	42	12	29%
			Proportion of newly diagnosed MDR-TB patients placed on treatment		100%	46%	46%
		6 month culture-conversion in MDR-TB treatment	Number of patients on MDR-TB treatment with a negative culture result at 6 months			29	
			Number of patients on MDR-TB treatment with a follow up culture test 6 months			33	
			Proportion of patients receiving MDR-TB treatment who are culture negative at 6				

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
			months				
				12%	75%	88%	117%
		MDR-TB treatment completion	Total number of registered MDR-TB patients who started treatment 24 months back			111	
			Total registered MDR-cases that have completed full course of treatment			88	
			Proportion of MDR patients completing full dose of treatment	59%	62%	79%	128%
		MDR-TB case fatality	Total number of registered MDR-TB patients who died during treatment			24	
			Total number of registered MDR-cases			108	
			Proportion of registered MDR-cases that have died during course of treatment	35%	30%	26%	87%

HSS							
1	Strengthen zonal and district management	Joint TB and HIV supervision	Number of joint supervisory visits performed by the zonal health office to target districts		24	52	217%

Expected Outcomes		Outcome Indicators	Indicator Definitions	Baseline (2011 data and performance)	Annual Target	Y3 Cumulative Results	
					Y3	Total Achieved PY3	% Achieved PY 3
		TB care and control strategic plan embedded within national health strategies	Yes or No: Country with National Health Strategy that includes specific TB care and control activities, specific for TB or as part of a wider strategy for communicable diseases in their overall national health strategies, budgeting processes and sector monitoring system (HMIS). There is evidence that TB care and control activities are mentioned in overall national strategies, planning document and budget monitoring systems.	Y	Y	100%	100%
		GOM Involvement	Yes or No: Current annual government budget allocates funding for anti-TB drugs	Y	Y	Y	Y
		Health workers trained	Total number of people trained (<i>to be disaggregated by gender and type of training during reporting</i>)		500	592	118%
		Essential TB Laboratory Consumables	Cumulative number of days of stock out of microscope slides, TB stains and immersion oil at the district hospital pharmacies in TB CARE II districts		0	176	0%
M&E							
1	Effectively monitor & evaluate TB CARE II activities and disseminate best practices to inform national TB policy decision-making	National TB M&E Plan is up-to-date	Yes or No: National M&E plan is up-to-date based on global policy and M&E frameworks, and reflect the findings of the most recent systematic assessment of surveillance and programmatic data	Y	Y	Y	100%
		NTP provides regular feedback from central to lower levels	Number of quarterly feedback reports prepared and disseminated		4	4	100%
			Number of annual feedback report prepared and disseminated	0	1	1	0

5 PROJECT ADMINISTRATION

In order to strengthen project management, a Field Project Accountant and a Laboratory Advisor were recruited. The Laboratory Advisor supports NTP at the national level, the National Reference Laboratory and additional support to the districts. The Advisor is part of the Program Management Team (PMT) that manages the TB CARE II Malawi activities.

5.1 Environmental Monitoring and Mitigation Activities

The TB CARE II consortium recognizes the need to ensure that activities conducted under the auspices of the project are designed to provide maximum good to the countries where they are implemented and to the extent possible, minimize any negative environmental consequences.

None of the activities implemented in the third year of the project required any special environmental impact mitigation activities. The team remains cognizant of this issue and will work closely with NTP and other stakeholders to ensure that the measures in the plan to reduce any negative consequences of the activities are implemented.

It is expected in Project Year 4 that with the start of the renovation projects, the EMMP will be monitored and reported on quarterly.

5.2 Key Initiatives for Year 4

In FY 14, TB CARE II will shift the strategy from intensive facility support to technical assistance model by working through established health system structures at all levels. The aim is to ensure that the districts take leadership and ownership of project implementation, and monitor their own progress. TB CARE II will work closely with NTP to ensure each district develops an implementation plan and shall provide the requisite financial and technical support for implementation of activities

The project will further support NTP in decentralizing TB services by establishing an additional TB registration and treatment initiation centers. DOTS registration remains highly centralized in Malawi. There are currently 642 ART sites compared to only 142 TB initiation and registration sites in the whole of Malawi.

In collaboration with the NTP and the HIV Department, TB CARE II will provide technical support and expand the diagnostic network by the installation of 7 additional GeneXpert machines donated by PEPFAR. Technical support will be provided in developing a National GeneXpert Roll-out Framework, a national revised algorithm, development of a monitoring and evaluation system, as well as in training for health care workers.

In FY14, the project will proactively collaborate with HIV department, partners such as SSDI, Dignitas and others to ensure integration of TB/HIV activities into pre-ART, ART, ANC and PMTCT settings. Specifically, TB intensified case finding and appropriate TB treatment, early initiation of ART, appropriate use of IPT and TB infection control will be strengthened at all the centers through training, mentorship and regular supervision. Specifically Chronic Cough Registers will be placed at each of the service delivery

points. A cough officer shall be identified who will request all clients to register and submit a sputum sample for testing using Xpert MTB/Rif.

A particular focus for FY14 will be support for QA/QC activities to ensure improved quality of services in TB testing facilities. The project will provide technical assistance in preparation of panels for proficiency testing at CRL as well as supporting the organization and analysis of test results. A national workshop on Lab Quality Management to strengthen the overall quality of TB laboratory services at all levels will be supported

6 PROGRESS TOWARDS PROMOTING GHI GUIDING PRINCIPLES

6.1 Woman and girl-centered approach

TB CARE II has adopted a strategic approach in line with Malawi's GHI strategy with a focus on improving access to ART for TB/HIV co-infected patients—our best tool against HIV transmission—and working to reduce the burden of TB in children. TB CARE II has taken a woman and girl-centered approach to address these barriers by working closely with NTP in scaling up community-based diagnostic services, strengthening of the community health system and care delivery through the capacity building and motivation package provision for community volunteers and the support for community MDR-TB management & care located closer to women's homes and livelihoods, expediting the diagnostic pathway for women and girls through health worker training and mentorship, implementing novel diagnostics to reduce the time from suspect identification to TB diagnosis and promoting gender-equitable national TB policy as articulated in the 2011-2016 NTP Strategic Plan.

6.2 Coordination and Programmatic Integration

TB CARE II collaborates with NTP at the national level by participating in weekly management meetings, participating and supporting Technical Working Group (TWG) meetings, providing technical assistance on various programmatic challenges and specifically with issues related to Global Fund. TB CARE II is also engaged and has supported the DHMTs to strengthen their capacity to coordinate support program implementation, coordination and integration through regular quarterly program review meetings and joint supportive supervision, mentoring and monitoring. In addition, the project has supported partnership and coordination meetings with in the districts. The partnership and coordination meetings are held by the DHMT and bring together all health implementing partners within a district.

Technical assistance to the project is provided by USAID Malawi and Washington. The project provides regular briefs to USAID on the status of activities focusing on TB and TB/HIV integration, and participates on monthly conference calls. The National AIDS Commission (NAC) and the NTP are also included in briefings, as they both continue to be major stakeholders in TB and TB/HIV collaborative activities.

6.3 Encouraging country ownership and investing in country-led plans and health systems

The project continued to work closely with the NTP to promote and facilitate country ownership of the project. In addition, TB CARE II participated on a regular basis on the deliberations and consultations of the NTP TB Technical Working Group (TWG) and TB/HIV TWG on one hand and on country-led planning, monitoring and review exercises.

The TB CARE II Senior TB Advisor was seconded to the NTP to provide direct technical support for NTP program implementation as well as NTP Global Fund grant implementation & monitoring.

The Project Year 4 workplan was developed in close consultation and participation with NTP to ensure that the work plan reflects the spirit and aspirations of country TB strategic plan of 2012-2016. In addition, the project jointly with NTP supported the districts in developing their District Implementation Plans (DIPs).

Partnerships and collaborations were supported at the national, zonal and district levels. This provides forum for collaboration at the implementation level in the districts, and this helps the DHMTs and NTP to maximize resources of the partners in TB implementation.

TB CARE II also introduced “Peer review meetings” in the impact districts where all TB service providers and DHMT member’s together review and plan for TB in their districts. This will reinforce planning for TB and also ability to critically review their performance with less support from MoH.

7 SUCCESS STORIES

TB CARE II Brings Hope to the Hopeless TB/HIV patients in Malawi: The Case of Tsangano Health Centre

Access to integrated TB and HIV services in most rural areas in developing countries like Malawi remains a challenge mainly for patients suffering from dual conditions of HIV and TB. Currently, in most districts in Malawi, there are three to four times as many ART clinics as there are TB clinics. The situation is worse in rural settings where patients with dual infection of TB and HIV have to move between different health centers to access treatment for each of the conditions, resulting in delay or failure to access treatment, non-adherence to treatment or loss to follow-up or avoidable death.

Thanks to TB CARE II, such a situation is being reversed in Ntcheu district, as the number of sites capable of initiating TB treatment in dually infected patients increased from two in 2012 to eight in 2013. More patients are now able to access TB/HIV integrated services from same health facility. Of particular interest is Tsangano Health Centre, a rural Christian Health Association of Malawi (CHAM) health center located close to the Malawi-Mozambique border in Ntcheu district. This health center is about 90km away from the nearest TB registration centre, which is Ntcheu District Hospital. Due to the poor road network it takes more than three hours to drive to Tsangano Health Center from the nearest tarmac road.

During a field visit by a joint TB CARE II Malawi Project and USAID Malawi mission in 2012, many challenges were identified regarding provision of TB care and services at the facility including inadequate microscopy, lack of well-trained microscopists and the fact that the centre was not a TB registration and initiation site at the time.

Recognizing that such a situation affected the 26, 633 catchment population of the center, TB CARE II collaborated with the Ntcheu District Health Team to improve microscopy and TB services at the facility, facilitated the training of 13 health workers on diagnosis and management of TB and TB/HIV patients, resulting in Tsangano being designated a TB initiation and registration site.

Ruth (28) an MDR-TB patient receiving treatment at Tsangano



Opening Tsangano Health Centre as a TB registration site has proved to be a big relief to TB/HIV co-infected patients in Ntcheu District. Dr. Nitta Naeja, the District Health

Officer had this to say about this milestone "Thank you to TB CARE II for supporting us to decentralize TB services in the district to hard-to-reach areas such as Tsangano. Ntcheu is now having 8 TB initiation sites compared to 2 at the beginning of 2012". Ruth Kubalalika (28) has multidrug-resistant TB (MDR TB) and is now able to walk the 12km from her Dzinjiriza village in Traditional Authority Mpando to Tsangano Health Center to receive her treatment, which was not the case before. Previously, she and many other patients like her faced a long and arduous journey to Ntcheu District Hospital for the same MDR TB, TB and TB/HIV services now available at Tsangano. Because Tsangano Health Center now offers integrated TB/HIV under one roof, patients no longer have to pay transportation cost to access TB services away from their ART centre.

TB CARE II is committed to improve TB/HIV integration by scaling up TB initiation and registration centers to bring the TB services closer to communities. Both the National TB Program and the Department of HIV appreciate the positive role TB CARE II has taken to improve the plight of TB/HIV co-infected patients and in reducing the period between TB screening, testing and treatment initiation in people living with HIV. TB CARE II plans to scale up this initiative with continuing support from USAID and PEPFAR in 2014.

8 APPENDIX

ENVIRONMENTAL MITIGATION AND MONITORING PLAN – PY3 (October 1, 2012 – September 30, 2013)

Environmental Mitigation & Monitoring Plan					
Activity	Mitigation measure(s)	Monitoring indicator(s)	Monitoring and Reporting Frequency	Party(ies) responsible	Results this Year
Procurement, Storage, Management, and Disposal of Public Health Commodities, including TB drugs, HIV test kits, laboratory supplies and reagents	Ensure that local laws and regulations pertaining to the transport, storage and disposal of pharmaceuticals, medical material and laboratory supplies are reviewed and incorporated in the activity plan. Follow manufacturer recommendations regarding safe disposal of materials. Review medical and laboratory waste issues in training of health workers.	Existence of guidelines on disposal of medical and laboratory waste.	Monitored quarterly and reported annually	MOH/NTP/Project Manager/Project Staff	Guidelines exist; disposal is in accordance with facility policies.
		Expired items are disposed of correctly.			

Generation, storage and disposal of hazardous or highly hazardous medical waste, e.g., sharps, TB testing and laboratory-related activities	Ensure that waste management policies are reviewed and incorporated in the activity plan. Include medical and laboratory waste issues in training of health workers.	Proportion of targeted facilities disposing of bio-hazardous materials in MOH approved biohazard containers.	Monitored quarterly and reported annually.	MOH IP Focal Persons/MOH District/Environmental Health Officers/Project Staff/Project Manager	N/A
		Proportion of facilities in targeted districts with infection control policy documents available to Environmental Health Officers.			N/A
Small renovation of health and lab facilities in targeted districts including access to running water, stable power supply and adequate ventilation.	Ensure that local laws and regulations pertaining to environmental safety are reviewed and incorporated in the activity plan.	Compliance document pre- and post-renovation completed	Monitoring as needed and reported annually	MOH Lab managers/MOH District TB Officers/MOH District Environmental Health Officers/TBCARE District Lab Officers/TBCARE District Coordinators	Selection of 5 renovations sites has been completed. Full review of proposed designs is underway.
	Require sub-contractor to observe local safety regulations and incorporate this into the contract.				